

ICF Consulting / Laboratory Data Consultants

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SFUND RECORDS CTR 88072798

MEMORANDUM

TO:

Nancy Riveland-Har

Remedial Project Manager Cleanup Section 4, SFD-7-4

THROUGH:

Rose Fong

ESAT Project Officer

Quality Assurance (QA) Office, PMD-3

FROM:

Doug Lindelof SL for DL

Data Review and OA Document Review Task Manager Environmental Services Assistance Team (ESAT)

ESAT Contract No.: 68-W-01-028

Task Order No.: B01

Technical Direction No.: B0105086 Amendment 1

DATE:

April 17, 2002

SUBJECT:

Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

SITE:

Omega Chem OU-2

SITE ACCOUNT NO.:

09 BČ LA02

CERCLIS ID NO.:

CAD042245001

CASE NO.:

11-BCCO-15.0

SDG NO .:

01J254

LABORATORY:

EMAX Laboratories, Inc. (EMAX)

ANALYSIS:

Volatiles

SAMPLES:

5 Water Samples

COLLECTION DATE:

October 29, 2001

REVIEWER:

Denise McCaffrey, ESAT/LDC

The comments and qualifications presented in this report have been reviewed by the EPA Task Order Project Officer (TOPO) for the ESAT Contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

ESAT File

SAMPLING ISSUES: [X] Yes

[] No

Data Validation Report

Case No.:

11-BCCO-15.0 SDG No.: 01J254

Site:

Omega Chem OU-2 EMAX Laboratories, Inc.

Laboratory: Reviewer:

Denise McCaffrey, ESAT/LDC

Date:

April 17, 2002

I. <u>Case Summary</u>

SAMPLE INFORMATION:

Samples: GW401-PP063-0059, GW401-PP064-0061,

GW401-PP065-0069, GW401-PP066-0065, and

GW401-PP066-2002

Concentration and Matrix:

: Low Level Water

Analysis: Volatiles SOW: SW-846

SW-846 Method 8260B

Collection Date:

October 29, 2001

Sample Receipt Date:

October 30, 2001

Extraction Date:

Not Applicable

Analysis Date:

October 30 and 31, 2001

FIELD QC:

Trip Blanks (TB):

GW401-PP066-2002

Field Blanks (FB):

Not Provided

Equipment Blanks (EB):

Not Provided

Background Samples (BG):

Not Provided

Field Duplicates (D1):

Not Provided

METHOD BLANKS AND ASSOCIATED SAMPLES:

MBLK1W: (

GW401-PP063-0059, GW401-PP064-0061DL,

GW401-PP065-0069DL, GW401-PP066-65,

GW401-PP066-0065DL, and GW401-PP066-2002

MBLK2W:

GW401-PP064-0061, and GW401-PP065-0069

TABLES:

1A: Analytical Results with Qualifications

1B: Data Qualifier Definitions for Organic Data Review

SAMPLING ISSUES:

Detected results for chloroform and methylene chloride are qualified as nondetected and estimated (U,J) due to contamination in trip blank GW401-PP066-2002.

Matrix spike/matrix spike duplicate (MS/MSD) analysis was not performed because no MS/MSD sample was designated in this sample delivery group (SDG).

ADDITIONAL COMMENTS:

Dichlorofluoromethane was not analyzed. This compound is included in the REAP DQI Table.

The REAP DQI Table specified that four surrogate spikes (Toluene-d8, BFB, 1,2-dichloroethane-d4, and dibromofluoromethane) are required. Only three surrogate spikes (Toluene-d8, BFB, and 1,2-dichloroethane-d4) were used by the laboratory. The accuracy of the analytes were assessed based on the same grouping of surrogates and internal standards used by the laboratory.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Data Quality Indicator (DQI) Table for *Volatile Organic Compounds (VOCs)* by SW-846 Method 8260, Appendix B, Attachment 2, Section J, Contract No. 68-R9-00-11, Regional Environmental Analytical Procurement (REAP);
- EPA SW-846 Method 8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996;
- ESAT Region 9 Standard Operating Procedure 901, Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages; and
- USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999.

II. <u>Validation Summary</u>

	Acceptable/	Comment
HOLDING TIMES	YES	
GC/MS TUNE/GC PERFORMANCE	YES	
INITIAL CALIBRATIONS	YES	
CONTINUING CALIBRATIONS	NO	С
LABORATORY BLANKS	NO	В
FIELD BLANKS	NO	В
SURROGATES	NO	D
LABORATORY CONTROL SAMPLE/DUPLICATE	YES	
INTERNAL STANDARDS	YES	
COMPOUND IDENTIFICATION	YES	
COMPOUND QUANTITATION	YES	A, E, F
SYSTEM PERFORMANCE	YES	
FIELD DUPLICATE SAMPLE ANALYSIS	N/A	

N/A = Not Applicable

III. Validity and Comments

- A. The following results, denoted with an "L" qualifier, are estimated and flagged "J" in Table 1A.
 - All results below the contract required quantitation limits
 Results below the contract required quantitation limits (CRQLs) are considered to be
 qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical
 precision near the limit of detection.
- B. The following results are qualified as nondetected and estimated due to method blank and trip blank contamination, and are flagged "U,J" in Table 1A.
 - Methylene chloride in samples GW401-PP063-0059 and GW401-PP066-0065
 - Chloroform and toluene in samples GW401-PP063-0059, GW401-PP064-0061, GW401-PP065-0069, and GW401-PP066-0065

Chloroform and methylene chloride were found in trip blank GW401-PP066-2002 at concentrations of 0.64 μ g/L and 0.54 μ g/L, respectively. Toluene was found in method blank MBLK2W and trip blank GW401-PP066-2002 at concentrations of 0.36 μ g/L and 0.28 μ g/L, respectively. Results for the samples listed above are considered nondetected and estimated (U,J) and the quantitation limits have been increased according to the blank qualification rules presented below.

No positive results are reported unless the concentration of the compound in the sample exceeds 10 times the amount in any associated blank for the common laboratory contaminants or 5 times the amount for other compounds. If the sample result is greater than the CRQL, the quantitation limit is raised to the sample result (U,J). If the sample result is less than the CRQL, the result is reported as nondetected (U,J) at the CRQL.

A laboratory method blank is laboratory reagent water analyzed with all reagents, surrogates, and internal standards and carried through the same sample preparation and analytical procedures as the field samples. The laboratory method blank is used to determine the level of contamination introduced by the laboratory during preparation and analysis.

A trip blank is laboratory reagent water which is shipped from the laboratory to the field with the empty sample containers and back to the laboratory with the filled sample containers. A trip blank is intended to detect contaminants introduced during the transport of the samples to the laboratory, although any laboratory introduced contamination will be present. Contaminants that are found in the trip blank which are absent in the laboratory blank could be indicative of a problem in transportation, storage, the bottle preparation procedure, or other indeterminate error.

- C. Detected results and quantitation limits for the following analytes are qualified as estimated due to large percent differences (%Ds) in the continuing calibrations, and are flagged "J" in Table IA.
 - Acetone in samples GW401-PP064-0061 and GW401-PP065-0069 and method blank MBLK2W
 - Hexachlorobutadiene in all samples and method blanks

A %D of 37.3% (biased high) was observed for acetone in the continuing calibration performed on October 31, 2001. %Ds of 33.5% and 34.3% (biased low) were observed for hexachlorobutadiene in the continuing calibrations performed on October 30, 2001 and October 31, 2001, respectively. These values exceed the ±30.0% validation criterion.

The continuing calibration checks the instrument's performance daily.

D. Detected results and quantitation limits for the following analytes are qualified as estimated due to surrogate recovery outside QC limits, and are flagged "J" in Table 1A.

{1,2-Dichloroethane-d4}

- 1,1-Dichloroethane and cis-1,2-dichloroethene in samples GW401-PP065-0069 and GW401-PP066-0065
- 1,1-Dichloroethene, 1,2-dichloroethane, trans-1,2-dichloroethene, trichlorofluoromethane, and freon 113 in sample GW401-PP066-0065
- Chloroform in sample GW401-PP066-2002

Surrogate recoveries exceeded the QC limits are shown below for the samples listed above.

<u>Sample</u>	<u>Surrogate</u>	% Recovery	QC Limits
GW401-PP065-0069	1,2-Dichloroethane-d4	118	75-115
GW401-PP066-0065	1,2-Dichloroethane-d4	116	75-115
GW401-PP066-0065DL	1,2-Dichloroethane-d4	116	75-115
GW401-PP066-2002	1,2-Dichloroethane-d4	117	75-115

Detected results for affected analytes may be biased high. The samples were not re-analyzed.

Surrogates are organic compounds which are similar to the target analytes in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples. All samples are spiked with surrogates prior to purging. Surrogates provide information about both the laboratory performance on individual samples and the possible effects of the sample matrix on the analytical results.

- E. Samples GW401-PP065-0069 and GW401-PP066-0065 were analyzed at 10-fold dilutions due to the high level of target analytes. The CRQLs listed for these samples in Table 1A have been multiplied by the dilution factors.
- F. Sample GW401-PP064-0061 was analyzed at a 10-fold dilution due to the high level of tetrachloroethene. The result for tetrachloroethene is reported from the diluted sample in Table 1A; results for all other analytes are reported from the undiluted sample.

Sample GW401-PP065-0069 was analyzed at a further dilution of 100-fold due to the high level of 1,1-dichloroethene. The result for 1,1-dichloroethene is reported from the 100-fold diluted sample in Table 1A; results for all other analytes are reported from the original analysis, performed at a 10-fold dilution.

Sample GW401-PP066-0065 was analyzed at a further dilution of 50-fold due to the high levels of 1,1-dichloroethene, cis-1,2-dichloroethene, trichloroethene, and tetrachloroethene. Results for 1,1-dichloroethene, cis-1,2-dichloroethene, trichloroethene, and tetrachloroethene are reported from the 50-fold diluted sample in Table 1A; results for all other analytes are reported from the original analysis, performed at a 10-fold dilution.

SDG No.: 01J254

Tier3 Table 1A

Site: Omega Chem OU-2

Lab: EMAX

Reviewer: Denise McCaffrey, ESAT/LDC

Date: April 16, 2002

QUALIFIED DATA Concentration in ug/L

Analysis Type: Water Samples for Volatiles by

EPA Method 8260B

Station Description : Sample ID : Collection Date : Dilution Factor :	: GW401-PP063-0059 : 10/29/01			GW401-PP064-0061 10/29/01			GW401-PP06 10/29/01 10	5-0069		GW401-PP06 10/29/01 10	6-0065		GW401-PP06 10/29/01	6-2002	ТВ	Method Blank MBLK1W 1			Method Blank MBLK2W 1		
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1-Dichloroethane	1U			1U			29	J	DE	180	J	DE	1U			1U			1	U	
1,1-Dichloroethene	. 1Ü.			4.6		. Leadin	630		EF.	* 1300°	J 8	DEF	1U			10	fluit .			Ů Ž	Topic:
1,1-Dichloropropene	10			10			10U	1	Е	10U		E	1U			10				U	
1,2,3-Trichloropropane	10	:55-		10			² 10U		E LE	10U	diameter.	E.	10	1.2	2	10	Ľ	•	1	U	
1,2,4-Trimethylbenzene	10			10	li		17		E	10U		E	1U	0.444		10			1		
1,2-Dibromo-3-chloropropane	2U	/ 01. ****	×3	2U	7 7 77	3,501	200	% <u>2.</u>	* E *	20∪	* * * * * *	E	20	*		20	×	الله الشارة	* A. S.	U	
1,2-Dichlorobenzene	10		10.11.00.0000	10_		#270#0#0# 1017	10U		E	10U		E	10		war :	10				U	
1,2-Dichloroethane	0.5U	- 41. 18.		[™] 0.24L	<u>. j</u> .	A	₹ % ,5U		E.	110	J	DE	3 🔊 0.5U	gram gray	Services	∮ · ∞ · 0.5U	8	:48	0.5	U	
1,2-Dichloropropane	10			10		***************************************	21		E	10U		E	1U			1U			1	U	
1,2-Dibromoethane	10		200	. 1∪	1, 1, 1		∛ે ∶ે <u>10</u> 0		E	100	<u> </u>	E	10	**	٠,٨٠٠	1ປ				υ	
1,3,5-Trimethylbenzene	10	~~~		1U			3.4L	. J	AE	10U	/M/*********************************	E	1U			1U			NAMED IN COLUMN	U	
1,3-Dichlorobenzene	10	»	Sanda Artic	10			10U		E	10U	taranan jih	2005 pm	10	200 · 3	Fi	1U.	May 1995;	, ,, a	L Market 25	<u>U</u>	2.35%
1,3-Dichloropropane	10	e present		1U	~~~. ~		10U		E	10U	\$0+ Cult	E	1U			1U	ye		The state of the s	U	- vymony gydyn
1,4-Dichlorobenzene	1U	كالأنملة	<i>37</i> 1	10		22	100	<u> </u>	E	10U	la Cara	£≟E	าบ	ا باداد استان		1Ü		4.00	- 2		
2,2-Dichloropropane	10	. 00777.5980388	S0002'	1U	y	S#8#577*** ****	10U	Floatile and decrea	E	10U	salah erakanakili	E	10		and its contributions	1U	48.00 m.		Agency American	U	
2-Chlorotoluene	្នាំប		72	1បទ្ធ		£	10U .	19.132.	Ε	100		. E	- ₹10			טו.	.Ac.alli.			ت پر	
Benzene	1U	1		1U		· · · · · · · · · · · · · · · · · · ·	, 10U		E	100	4, 13	Ε	1U	971.46%	RGMO DS	10				U	الكرافة الإراء
Bromobenzene *	ું દૂધાયુ	II		10	i kai	1 1	10U	- %	E	10⊍		E	1,U	المكلف الم		~ √ % 10	·	* /	* 1 aa		i i i i i i i i i i i i i i i i i i i
Bromochloromethane	1U		yyanga	10		. California	10U	1 700	E	10U	Şirinfilani əzirmi	E	1U			10	,	. 238	A COMPANY	U.	ya wayan ka ka wayar
Bromodichloromethane	. ₹ 1U	133		ຼື _1ບ			. 🎉 10U	3.	Ě	10U		_;E	½ <u>1</u> ∪	*	1.00	1∪].]	:22	- March	U. 1	
Bromoform	1U		2002/14	1 <u>U</u>			100		. "E	10U	,	E	1U			10		%: 38055m	1 1	U.	. g
Bromomethane 💸	106			10	<u> 11 11 11 11 11 11 11 11 11 11 11 11 11</u>	32			E	1 <u>0</u> U		a Éiri	ý., 1Ú	Š. 1. J		1U				U	
Carbon Tetrachloride	0.99		da sime	0.5U			5U	. .	, Ε	.5U		. E	0.5U			0.5U	·		0.5		*** ** * * * * *
Chlorobenzene	10	n. n.	1. 1.4	10_			100	<u> </u>	Ε	100_		E	10	<u>X</u>	·- ··········.		. A	Marke		U	. <u> </u>
Chloroethane	10			1U	,		10U		,, E	10U		E	1U			1U		100 E	,	U	
Chloroform	1 <u>U</u>	J	B:	10	J	, B	100	_# *J	BE	10U	<u>. J</u>	_BE ∽	0.64L	3. J	AD	10	42	A 1102		<u>u</u>	
Chloromethane	10			. 10	1		100		E	10U		Ε	10	-		. 1U				U.	
cis-1,2-Dichloroethene	10			3_			44	X.J.	DΕ	550	, J	DEF	.1U			_ 1U				U.	
Dibromomethane	1U	l		10			10U	w	Ę	100		E	1U			1U			1	U	
Dichlorodifluoromethane	10		. •	,1U			.10U	26.5 26.5	E	100		. E :	10	Min.	·. · .	10,	Arr.			U	
m/p-Xylenes	10		,	1U	Ψ .	200 A 310	10U		E	10U	٤٠,	E	1U 	ε		1U				U se en 2 o	
n-Butylbenzene	<u>1</u> U	. Ý.LÝ		10			∜5.2៤	٦ J	. ĂΕ ∶	100		<u>.E</u> ., .	10	<i>.</i>	ž	10		1. 1867		U,	
o-Xylene	10	1,12	. .	1U	y		10U		E	10U	Miles and an article	",E.	1U	,w w	,	1U				U	
sec-Butylbenzene	. 1∪	72 2007 2.400m	::Xi	`	سنده سند		4.2L	·J	AE	100	86 j.:	E	ี่ ไป			1U)	·: :: : :				
tert-Butylbenzene trans-1,2-Dichloroethene	1U 1U:		K a ta	1U 0.93L		Α	10U 10U		E	10U 4:3L		ADE	1U 1U	,		1U , 1U e	€ Pari			U \$	

SDG No.: 01J254

Tier3 Table 1A

Site: Omega Chem OU-2

-6. 544

Reviewer: Denise McCaffrey, ESAT/LDC

Date: April 16, 2002

QUALIFIED DATA

Analysis Type: Water Samples for Volatiles by

Concentration in ug/L

EPA Method 8260B

Station Description :	1															Method Blank	k		Method Blank		
Sample ID :	GW401-PP06		GW401-PP06	64-0061		GW401-PP065-0069			GW401-PP066-0065			GW401-PP066-2002 TB			MBLK1W			MBLK2W			
Collection Date :	10/29/01			10/29/01 1			10/29/01			10/29/01			10/29/01						į .		
Dilution Factor :	1			1	10					10			1			1			1		
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Vai	Com	Result	Val	Com	Result	Val	Com
Trichlorofluoromethane	10			7.9			10U		Е	19	J	DE	10			1U			1U		
Vinyl Chloride	2∪		in all	2U.	2/4	512	20U	8	E	20 U	1	E	2Ü	43,647,5	Andreas and the	2U			2U	100	ž A.
Acetone	10U	11-19		10U	J	C	100U	J	CE	100U		E	10U			10U			10U	J	С
2-Butanone			3	100	A		№ 1000		. E	100U		, <u>E</u> .	10U		200	100		227	100		i di
Carbon Disutfide	1U			10	******* ***		10U		E	10U_	,. ,.,	E	1U			1U			1U		
Toluene		J	В	* 1U	* J@2	<u>ы. В.</u>	100	≫. J.	BE	10U	j	BE	0.28L	ં છે તું જ	<u> </u>	. 10	. 865	&XX.6.	0.36L		A
Trichloroethene	1.7	* * 5; ***********	*** #**** ~000000	32			70		E	540		EF	1U		20 to 00 144 MARK	1U			1U		~~~~
Chlorodibromomethane	1U		- 70	1 0 ≥ 10		المستديد	. 10U	X22	<u>≴</u> "E	10U_	5m r ma 3	Ě	10	100.00		ั้ง มูบ	. Silveria	Halikki	10		
4-Chlorotoluene	1U		*** ***	10	00 No		10U	er i	E	100	1	E	10	er:	*****	1U		, w., .	1U		····
Tetrachloroethene	5.9	. 3) N &	3 45		F.∖			Ë»	850	J,	EF ~	10		<i>#</i>	. 1U₂	. 19	bi. L	` 1U		
Freon 113	0.97L	J	Α	13			10U		E	17	J	DE	1U			1 <u>U</u>			1U		.,
Ethylbenzene	1U_			<u> </u>		***	10U°		Ε,	10U		E	1U			1U.	a	8idaa - Ya	1U		
Hexachlorobutadiene	1U	J	_ C	1U	J	C	10U	e	CE	10U	j	CE	1U	, J	C	1U	J	C	, <u>1U</u>	J	С
Isopropylbenzene	10	Ž.Z	off: about	ຸ 1ປຸ	de no		, 10U	202	Ε.	10U		}~E∰	(°1∪	.3	Z.	, 2' 1Û'			1U		
p-Isopropyltoluene	10	<u>,</u>	er e	1U	٠		2.3L	J	А	100	to in describe	E	10 سرسور		mediate	1U			1U		1901 1 ZO
Methylene Chloride	10	ี้ ำั	В	10		380-44	10U	*	E	10U	J.	;₃BE	0.54L	J	A	1U		A.	์ เก็บ		~ @
Naphthalene	10		Mar management	1U	#***********	7,0 1 mm mage	. 13	man abbe s i s in s s	E	100		Ε	1U			1U		g.,,,,,,	1U		- SESSON W. THE A
n-Propyibenzene	1U				22.	2.7385	100,		E	100	1 1/2	. Е	10			* · · * 1U		organi of C. uman are t	<u>. 1U</u>		2550
Styrene	10			1U	gener-yearen		10U	ar	E	10U		E.	10	9095 to 1 to 1 to 1	· ministra	1U		*****	1U	,, ₍ ,	* 1 1990, 1991
1,1,1,2-Tetrachloroethane				10) 2		, 10Ù	ř	. E.	10Ù	1	a E 🛦	3.21 1Ú.≹	F		1U ₀		uiANA	10		23. 23.
1,1,2,2-Tetrachloroethane	1U	50.00 00.	w /ww	1U	900 - XI, 77		10U		E	10U	i	Ε.	1U			1U		[1U		-c- 126
1,2,4 Trichlorobenzene	1U		111	10		38.438	10U	2.2	Ε×	100		Ε	<u>1</u> U	- 3		10	2.2	i.	10		3
1,2,3-Trichlorobenzene	1U	,	····· ,	1U	465.5	*************	10U		Ε,_	10U		E	1U			1U	P-9-12-00-2-1000	encer over	1U		
1,1,1-Trichloroethane		2		10			. 15		.€	59		. E	įU			. 10		M. A	1 <u>U</u>		
1,1,2-Trichloroethane	. 1U		<u> </u>	1U	.,		10U		E	10U		. E	. 10			1U			1U	l	
Methyl t-Butyl Ether	10			0.27L	Ĵ	Α	10U/	Š.	E	10U		۸ E	, 1U	. GF		10		🕺	10	* '	
Dichlorofluoromethane	NA			NA			NA			. NA			NA NA			NA	l		NA.		
		20	14.4	- X- X- X		2.20	200		132	7 S	7 7 4			4-30		N F					

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation LImit, N/A - Not Applicable, NA - Not Analyzed

Validated Results are presented in bold.

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

SDG No.: 01J254

Tier 3 Table 1A

Site: Omega Chem OU-2

Lab: EMAX

Reviewer: Denise McCaffrey, ESAT/LDC

Date: April 16, 2002

QUALIFIED DATA Concentration in ug/L Analysis Type: Water Samples for Volatiles by

EPA Method 8260B

Station Description : CRQL Sample ID Collection Date Dilution Factor Volatile Compound Result Val Com 1,1-Dichloroethane 1,1-Dichloroethene · FWS <u>@</u>1 ëŻ. and). Aldi: in a 3.00 gi) San 3 Car Mira KATA. يناهن 1,1-Dichloropropene 1 1,2,3-Trichloropropane . ka 3 .. 1,2,4-Trimethylbenzene ** 300 Free to a 1,2-Dibromo-3-chloropropane and they we 9.2500 C. S. . Sign 1,2-Dichlorobenzene · 686 Aran 🎆 99833 1,2-Dichloroethane 277 Simo V 2 ،0.5 و . dii SERVICE S 80.30 فاستلكاني 5. 1,2-Dichloropropane 1,2-Dibromoethane 双 经1 72 200 1,3,5-Trimethylbenzene 111111 Asset. 1,3-Dichlorobenzene N3 N 1,3-Dichloropropane 747 2000 M. Ar . * *.59*799 1,4-Dichlorobenzene 200 2 2,2-Dichloropropane 410 Å 2-Chlorotoluene Benzene # # 34 si**n**i Bromobenzene . 4.26i and the Co Bromochloromethane 73 \$ · 50° \$ WWW. Bromodichloromethane á Bromoform 383 1 2 30 35 249 Bromomethane ŠE. 2 Sta Bak \$ Carbon Tetrachloride 0.5 **%**1 **X**X Chlorobenzene 1.12 Chloroethane 909/X Chloroform 1 V -- . ŵ 2.25 Chloromethane cis-1,2-Dichloroethene 1 Sikk. 8.4 anthe. Dibromomethane 25 1 000 S 1 Dichlorodifluoromethane m/p-Xylenes n-Butylbenzene .1 o-Xylene 4 man i di ka sec-Butylbenzene No. 34 tert-Butylbenzene Sec. 80. 3 trans-1,2-Dichloroethene

CCO-15.0 SDG No.: 01J254

Site: Omega Chem OU-2

Lab: EMAX

Reviewer: Denise McCaffrey, ESAT/LDC

Date: April 16, 2002

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Station Description :													<u> </u>								
Sample ID :	CRQL			į						1											
Collection Date :																					
Dilution Factor :			•				-														
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Val - Validity Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Llmit, N/A - Not Applicable, NA - Not Analyzed

Validated Results are presented in bold.

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," February 1994.

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
 - J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
 - NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
 - UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
 - R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.